

METAL SUPPLY INC.

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WEIGHT FORMULAS

ROUND ROD:

Square of diameter x 9.42 x density of alloy (lbs. per cubic inch) = weight per lineal foot in pounds.

SQUARE BAR:

Square of one side x 12 x density of alloy (lbs. per cubic inch) = weight per lineal foot in pounds.

HEXAGON ROD:

Square of distance across flats x 10.4 x density of alloy (lbs. per cubic inch) = weight per lineal foot.

RECTANGULAR BAR:

Thickness x width x 12 x density of alloy (lbs. per cubic inch) = weight per lineal foot in pounds.

ROUND TUBE:

37.7 x density of alloy (lbs. per cubic inch) x wall thickness x outside diameter minus wall thickness = weight per lineal foot in pounds.

SQUARE TUBE:

1.27 x the weight of a round tube of the same wall thickness, and of diameter equal to the distance across the flats of the square tube = weight per lineal foot.

SHEETS:

Thickness x 144 x density of alloy (lbs. per cubic inch) = weight per square foot in pounds.

STRIPS AND ROLLS:

Thickness x width x 12 x density of alloy (lbs. per cubic inch) = weight per lineal foot in pounds.

CIRCLES:

Square of diameter x thickness x .0785 x density of alloy (lbs. per cubic inch) = weight of a circle.

RINGS:

Outside of diameter plus inside diameter x outside diameter minus inside diameter x thickness x 0.785 x density of alloy (lbs. per cubic inch) = weight of ring in pounds.

DENSITIES OF POPULAR METALS

METAL	DENSITY POUNDS PER CUBIC INCH
Aluminum 5005	0.098
Aluminum 5052	0.097
Aluminum 6061	0.098
Aluminum 6063	0.097
Ampco Metal	0.274
Asarcon (SAE 660 Bearing Bronze)	0.318
Brass 220	0.306
Brass 230	0.316
Brass 260	0.308
Brass 270	0.306

METAL	DENSITY POUNDS PER CUBIC INCH
Brass 274	0.305
Brass 360	0.307
Brass 385	0.305
Copper	0.322
Gold	0.697
Iron	0.284
Lead	0.410
Magnesium	0.061
Manganese	0.267
Muntz Metal	0.303

METAL	DENSITY POUNDS PER CUBIC INCH
Naval Brass	0.304
Nickel	0.322
Platinum	0.775
Silver	0.378
Stainless Steel	0.290
Steel	0.284
Tin	0.264
Tobin Bronze	0.304
Zinc	0.258